

AIR QUALITY FORECAST ACCURACY (THROUGH MAY 31)

**Air Quality Subcommittee
June 21, 2019**

ACTION REQUESTED

No action requested. This item is for presentation and discussion.

- **Air quality forecast accuracy (through May 31)**

PREVIOUS ACTION

No Prior Action (Quarterly Update for Subcommittee)

BACKGROUND

NOACA forecasts daily peak eight-hour ground-level ozone concentrations and fine particulate matter concentrations.

- In 2019, daily forecasts for ozone began March 1 and will conclude October 31
- Daily forecasts for fine particulate matter are year-round

NOACA posts daily air quality forecasts through AirNowTech, in affiliation with the United States Environmental Protection Agency (U.S. EPA)



BACKGROUND

NOACA ground-level ozone and fine particulate matter forecasts based on a review of several meteorological variables and model guidance.

- National Oceanic & Atmospheric Administration (NOAA) National Air Quality Forecast Capability (ozone only).
- Classification and Regression Tree (CART) Model
- Sonoma Tech Guidance (via Columbus/Central Ohio Forecast on AirNow.gov)

BACKGROUND

NOACA Forecast Performance for 2019 (PM_{2.5}):

PM _{2.5} GOOD/MODERATE THRESHOLD (12 µg/m ³)		NOACA FORECAST	
		BELOW	ABOVE
OBSERVED	BELOW	39%	18%
	ABOVE	14%	29%
CORRECT = 68%			

BACKGROUND

NOACA Forecast Performance for 2019 (PM_{2.5}):

PM _{2.5} MODERATE/UNHEALTHY THRESHOLD (35 µg/m ³)		NOACA FORECAST	
		BELOW	ABOVE
OBSERVED	BELOW	100%	0%
	ABOVE	0%	0%
CORRECT = 100%			

BACKGROUND

NOACA and NOAA Forecast Performance for 2019 (March 1-May 31) (O₃):

FORECAST		THRESHOLD	
		50ppb	70ppb
AGENCY	NOACA	85%	100%
	NOAA (6Z/12Z)	(89/89)%	(100/100)%



NEXT STEPS

- **Track forecast performance of NOACA and NOAA for ozone; NOACA only for fine particulate matter**
- **Collaborate with NOAA personnel to report model performance in Northeast Ohio**
- **Update Air Quality Subcommittee in September**



NOACA will **STRENGTHEN** regional cohesion, **PRESERVE** existing infrastructure, and **BUILD** a sustainable multimodal transportation system to **SUPPORT** economic development and **ENHANCE** quality of life in Northeast Ohio.

